

a first gas supply mechanism arranged between the aperture plate and the projection system and supplying to a first space a first gas that transmits the exposure beam.--

--44. (New) The exposure apparatus as set forth in claim 43, further comprising:
a transmission window that is arranged in the aperture, and through which the transmitting beam is transmitted.--

--45. (New) A method of manufacturing a device, including a process in which a device pattern is transferred onto a workpiece,
wherein the device pattern is transferred onto the workpiece, using the exposure method as set forth in claim 1.--

REMARKS

By this Amendment, claims 1-3, 6-11 and 13-15 are canceled, claims 4, 5 and 12 are amended and new claims 16-45 are added. Accordingly, claims 4, 5, 12 and 16-45 are pending. No new matter is added.

The attached Appendix includes marked-up copies of each rewritten claim (37 C.F.R. §1.121(c)(1)(ii)).

In view of the foregoing, reconsideration of the application is respectfully requested.

The Examiner is requested to consider the references submitted with the attached Information Disclosure Statement.

Applicant gratefully acknowledges that the Office Action indicates that claims 3, 8, 11, 12 and 14 contain allowable subject matter.

Claims 4 and 5 stand rejected under 35 U.S.C. §112, second paragraph, as incomplete for omitting essential elements. This rejection is respectfully traversed.

The Office Action indicates that the omitted elements are a first gas and a second gas. Claims 4 and 5 are amended to recite a "first" gas rather than a "third" gas and a "second" gas

rather than a "fourth" gas. Claim 12 is similarly amended for consistency. The claims are amended for the sake of clarity and are not narrowed by the amendment.

It is respectfully submitted that claims 4 and 5 fully comply with 35 U.S.C. §112. Accordingly, withdrawal of the rejection is respectfully requested.

Claims 4 and 5 are not rejected over the references of record. Accordingly, it is respectfully submitted that claims 4 and 5 are allowable.

Claims 1, 2, 7, 9, 10 and 15 stand rejected under 35 U.S.C. §102(b) over U.S. Patent No. 4,704,348 to Koizumi et al. Claims 6 and 13 stand rejected under 35 U.S.C. §102(e) over U.S. Patent No. 5,877,843 to Takagi et al. These rejections are moot in view of the cancellation of claims 1, 2, 6, 7, 9, 10, 13 and 15. Accordingly, withdrawal of the rejections is respectfully requested.

It is respectfully submitted that new independent claims 16, 24, 32 and 43 are patentable over the applied references.


Neither Koizumi et al. nor Takagi et al. discloses a structure in which a first space, of spaces between the projection system and a second object, on a projection system side is surrounded by an enclosure member in which a first aperture is formed in a region in which the exposure beam is transmitted, a gas that transmits the exposure beam is supplied into the enclosure member from a supply port arranged in the enclosure member, and the gas supplied into the enclosure member is exhausted from a second aperture different from the first aperture. Therefore, it is respectfully submitted that neither Koizumi et al. nor Takagi et al. discloses, teaches or suggests the combinations of features recited in new independent claims 16, 24 and 32.

Further, it is respectfully submitted that neither Koizumi et al. nor Takagi et al. discloses, teaches or suggests the combination of features recited in new independent claim 43. Neither reference discloses an aperture plate or a first gas supply mechanism as claimed.

In view of the foregoing, Applicant submits that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 4, 5, 12 and 16-45 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number set forth below.

Respectfully submitted,



Mario A. Costantino
Registration No. 33,565

Klifton L. Kime
Registration No. 42,733

MAC:KLK/dmw

Date: April 4, 2003

Attachments:

Appendix
Amendment Transmittal
Petition for Extension of Time
Information Disclosure Statement

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
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APPENDIX

Changes to Claims:

Claims 1-3, 6-11 and 13-15 are canceled.

Claims 16-45 are added.

The following is a marked-up version of the amended claims:

4. (Amended) An exposure method in which a second object is exposed, via a projection system, with an exposure beam that has passed a pattern of a first object, said exposure method comprising:

disposing a stage holding said first object or said second object and moving on a base member in a space supplied with a ~~third~~first gas that transmits said exposure beam;

floating said stage on said base member in a differential exhaust system by blowing a ~~fourth~~second gas and sucking said ~~fourth~~second gas; and

setting the permissible absorbcency limits of said ~~fourth~~second gas relative to said exposure beam higher than that of said ~~third~~first gas.

5. (Amended) An exposure method according to claim 4, wherein said ~~third~~first gas and said ~~fourth~~second gas are different gases from each other.

12. (Amended) An exposure apparatus in which a second object is exposed, via a projection system, with an exposure beam that has passed a pattern of a first object, said exposure apparatus comprising:

a stage that holds said first object or said second object and moves on a base member;

a chamber that substantially hermetically seals a space enclosing said stage;

a gas supply device that supplies a ~~third~~first gas that transmits said exposure beam into said chamber;

an air bearing device that ~~float~~floats said stage on said base member in a differential exhaust system by blowing a ~~fourth~~second gas and sucking said ~~fourth~~second gas; and

a setting device that ~~set~~sets the permissible absorbency limits of said ~~fourth~~second gas relative to said exposure beam higher than that of said ~~third~~first gas.